

# EXAKT PS-160

## Instructions for Use



Distributed by JML USA, Inc.  
3PL Worldwide 500 Bic Drive  
Ground Floor, Building 4  
Milford, CT 06461.

Patents Apply  
Registered Design  
Made in PRC

170310\_revA

## PS 160 Safety Warnings - Instructions for Putting Into Use

### Setting up the Saw for Use

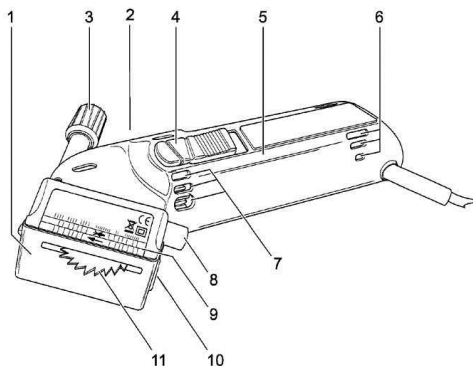
After unpacking check that there are no parts missing or damaged. If there are contact supplier and do not operate.

Before using a blade needs to be fitted as described in the operating instructions. **(See Blade Changing Section)** A cardboard packing disk may be fitted in place of the blade, which will need to be removed.

### Information on Power Supply

This equipment should be connected to a normal domestic socket outlet with a voltage rating of 120 V

### Illustrated Description of Functions



- 1. Baseplate
- 2. Guard lock (not shown)
- 3. Depth adjuster knob
- 4. Switch
- 5. Handle

- 6. and 7. Air vents
- 8. Dust extract nozzle
- 9. Cutting width marks
- 10. Guard removal screw
- 11. Saw blade 2-1/8" Ø

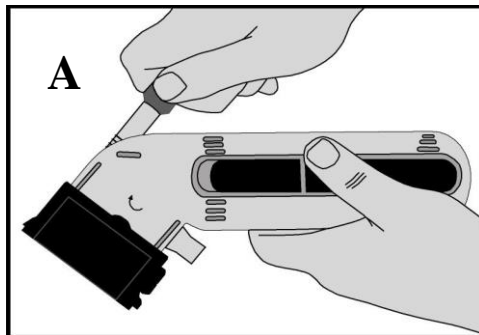
### List of contents

- 1x PS 160 Saw
- Blades (dependant on kit)
- 1x Instruction manual
- 1x Torx key & 1x U key
- 1x Spare safety washer
- 1x Dust extraction hose
- 1x Storage case

## PS 160 Safety Warnings – Operating Instructions

This tool should always be used with the dust hose connected and attached to a suitable vacuum cleaner/dust extractor.

### Setting the Cutting Depth



- a) The depth of cut can be set by turning the depth control knob. **(Diagram A)**
- b) When cutting wood the depth of cut should be set to slightly greater than the thickness of the material for best results.
- c) When cutting plastics the depth of cut should be set to slightly greater than the thickness of the material. If melting occurs a greater depth setting will improve results.
- d) When cutting metals the depth of cut should be set to approximately 1/32" greater than the material thickness for best results.

If it is desirable not to mark the surface beneath the workpiece, the depth can be set to the same as the material thickness, when cutting wood or plastics, but this may result in a rough edge.

**NOTE: If the depth control knob becomes difficult to turn, unscrew it until the rubber seal can be seen. Clean the surrounding area with a soft brush and then apply a very small quantity of synthetic grease to the seal.**

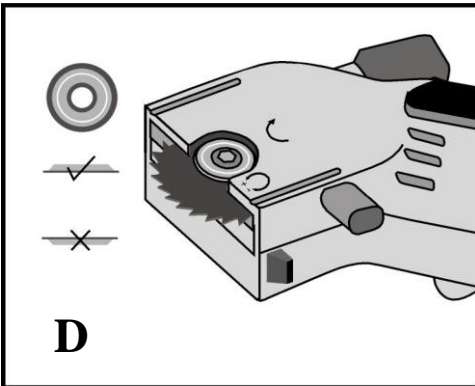
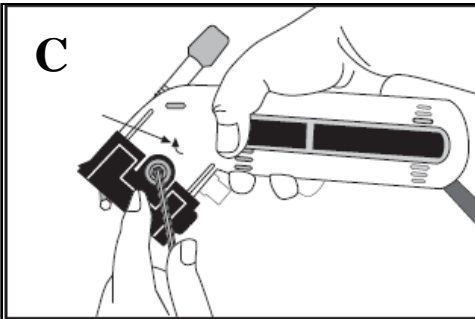
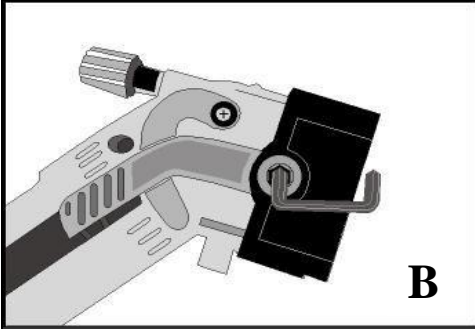
### Blade Changing

**NOTE: Incorrect positioning of the blade can permanently damage the tool.**

- a) Ensure the tool is unplugged from the power supply.
- b) Unscrew the depth adjuster until the number 1/2" is visible.
- a) Without removing the guard insert the U key into the blade shaft to lock it. **(Diagram B)** Slide off the removable

cover, insert the torx key into the blade retaining screw and unscrew clockwise. **(Diagram C)**

- b) Depress the guard to remove the blade.  
c) Place the new blade onto the blade shaft ensuring the hole locates correctly and the teeth point forwards in the direction of the curved arrow. **(Diagram C)**  
d) Replace the safety retaining washer and tighten the screw. **(Diagram D)**  
e) Remove both keys before plugging in.

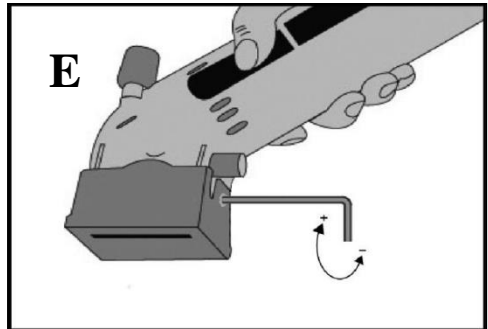


## Guard Removal

**NOTE: Do not use without the Guard.**

- a) Ensure the tool is unplugged from the power supply.  
b) Unscrew the guard release screw. Slide off the guard. **(Diagram E)**

**NOTE: When replacing the guard the blade can protrude through the slot in the base plate. To avoid injury ensure that the hand is kept well clear. Ensure the guard is replaced the correct way round.**



## Clamping

It is not normally necessary to clamp the material being cut as long as it is fully supported on a work surface and held with one hand. Clamping should be used where;

- The operator is inexperienced in the use of power saws or weak handed
- Small parts or tough material is to be cut.

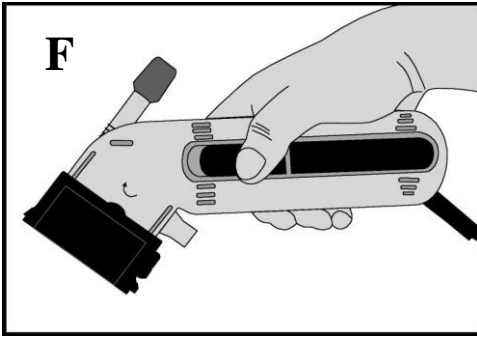
## Cutting Limitations

There is no limitation on the size of material that can be cut as long as it is fully supported. The saw will cut up to 1/2" deep. Material up to twice as thick can be cut if cutting is performed on both sides.

## Holding and Switching On

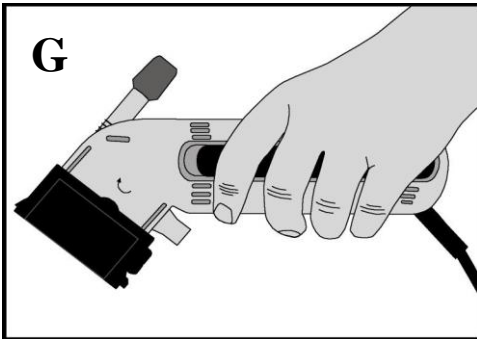
Holding the tool correctly will result in easier and safer operation, with less fatigue.

**Right handed operator: (Diagram F)**



- a) Grasp the handle firmly with the right hand so that it feels comfortable. The thumb should be towards the rear of the power switch.
- b) Do not cover any of the front vents and no more than one rear vent.
- c) To operate, ensure that any part of the thumb between the tip and middle joint is over the serrated area of the switch. (Whichever part is most comfortable) Squeeze the switch in towards the handle and then pull backwards.

#### Left handed operator: (Diagram G)



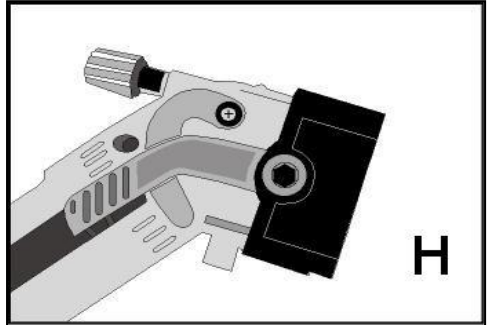
- a) Grasp the handle firmly with the left hand so that it feels comfortable. The forefinger should be towards the rear of the power switch.
- b) Do not cover any of the front vents and no more than one rear vent.
- c) To operate, ensure that any part of the forefinger between the tip and middle joint is over the serrated area of the switch. (Whichever part is most comfortable) Squeeze the switch in towards the handle and then pull backwards.

#### Guard Lock

- a) Place the tool at the start of the cut.
- b) Switch on the tool in accordance with the instruction manual. Next release the guard lock. (Diagram H)

Then plunge the saw blade to start the cut. The guard lock is released by pushing in the direction of the arrow in the diagram. Either the hand holding the tool or work piece can be used, whichever is easier.

- c) After the cut has been finished and the tool switched off, ensure the guard lock has fully returned to its resting position. If not clean thoroughly with a soft brush.



#### Cutting

The EXAKT PS 160 is unique because it clamps the material to be cut between its base plate and the work surface using a plunge action to ease the blade into the cut. This results in a faster, easier and cleaner cut.

**NOTE: Always cut in a forward direction. Never draw the tool backwards. If you are a novice user, practice by cutting thin wood until proficient.**

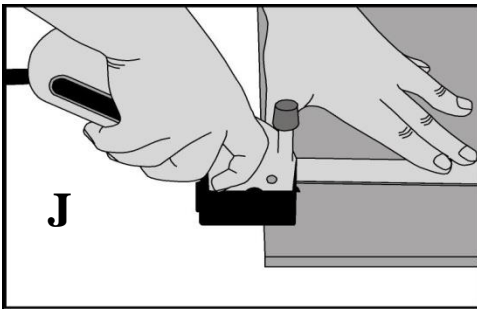
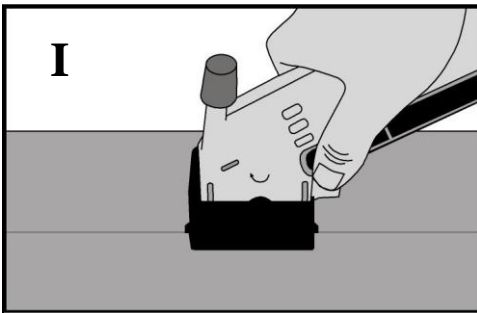
- a) Check the specifications to ensure the suitability of the material to be cut.
- b) Fit the correct blade ensuring it is sharp and not damaged.
- c) Set the depth of cut. (See **Setting Cutting Depth Section**)
- d) Place the material to be cut onto a flat surface such as a workbench, table or floor. Use a piece of scrap material underneath it:
  - You do not wish to mark the work surface.
  - The work surface is likely to damage the blade. E.g. a concrete floor.
- e) Plug into power supply.
- f) Grasp the tool firmly (See **Holding & Switching on Section**) and rest its metal base plate onto the surface to be cut. Ensure that the rear half of the base plate overhangs the work surface. Do not plunge the blade into the material.
- g) Switch on the tool and wait for one second for the blade to run up to speed. Next, depress the guard lock lever and plunge the blade into the material slowly and gently, but firmly. Then push the tool

**forwards** along the line to be cut. **(Never motion the tool backwards)**

- h) Very little force should be used to feed the tool along the cut. Excess force will cause operator fatigue and excessive wear to the blade and tool. Excess force is also likely to cause the temperature cut-out to trip, resulting in delays.
- i) Ensure that the base plate is always held flat on the material being cut. This is particularly important at the start or finish of a cut or if thin strips are being cut where the base plate is not fully supported.
- j) Once the cut has been finished, lift the tool from the work surface before switching off. If a lot of dust has been created, keep switched on for a few seconds extra to allow the dust to clear from within the tool.

### Line Following

- a) Pointers at the front and rear of the guard allow a line to be followed, when cutting. **(Diagram I)**
- b) For more accurate and neater cutting a metal ruler, held with the free hand, can be followed. To position the ruler draw a second line  $\frac{3}{8}$ " to the left of the cutting line. (Or  $1 \frac{5}{16}$ " to the right of the cutting line for left handed operators.) **(Diagram J)**

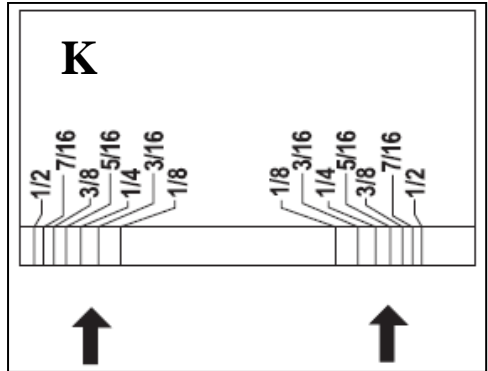


### Measuring the Cutting Width

When making cut outs it is desirable to know exactly where the cut will start and stop to prevent unsightly over cutting. Indication numbers, which correspond to

the depth setting, are marked on both sides of the guard to show where the blade starts and stops.

**(Diagram K)**



- a) Mark the area to be cut out on the material to be cut. If the area is not a square or rectangle, separate start and finish lines may have to be drawn. These are drawn from the start and finish point, at right angles to the line of cut.
- b) To use the width indication system first set the cutting depth, **(See Setting the Cutting Depth Section)** for example, to  $\frac{1}{2}$ "
- c) Identify this number (e.g.  $\frac{1}{2}$ " both on the front and rear of the guard.
- d) Align the indication mark below the rearmost number on the guard with the start line on the material to be cut.
- e) Proceed with the cut until the indication mark below the forward number aligns with the finish line on the material being cut.

### Cut-outs

**NOTE: Plunge cutting may not be possible in some hard materials.**

- a) Set the depth of cut, **(See Setting the Cutting Depth Section)** plug in the power supply and then place the metal base plate onto the work surface. Ensure that the rear width indication mark on the guard aligns with the start line. **(See Measuring the Cutting Width Section)** To ensure accurate cut-outs the guard can be held with the free hand, but ensure it does not come into contact with the blade.
- b) Switch on the tool and wait for one second for the blade to run up to speed. Next, plunge the blade into the material slowly and gently, but firmly. Then push the tool forwards along the line to be cut. **(Never draw the tool backwards)**
- c) Once the finish line has been reached, lift the tool from the work surface before switching off. If a lot of

dust has been created, keep switched on for a few seconds extra to allow the dust to clear from within the tool.

#### **d) Cutting out tips:**

- If the cut is to be covered, for example by a vent cover, the corners can be overlapped to ensure that the waste material is completely detached.
- If the cut out is to be seen, do not overlap the corners. In this circumstance, as the cutting blade is circular, the waste material will not be fully detached. The corners will therefore, require finishing with a knife. If the material is thin and the back surface unimportant, the waste material can just be pushed out.
- Where there is access to the back surface of the material to be cut, the cut out can be marked out with an over cutting allowance. The cut is then made from the back surface to ensure perfect corners on the front surface. A table of over cutting allowances is shown in the specifications section.

### **Cutting particularly Tough or Abrasive Materials**

**NOTE: Learn to use the tool by cutting wood before attempting to cut anything tougher. When cutting tougher material, such as metals and some plastics, more force is required to hold the work piece. Clamping may be required.**

**Never cut materials that produce toxic dust or fumes such as PTFE or asbestos.**

#### **1. Sheet metal:**

- Always set the depth adjustment to at least 1/32" greater than the material thickness to avoid the blade riding up over the surface. Scrap material is required underneath the work surface.
- Remove burrs and rust as these impede the feed.
- Thick beeswax (furniture polish) applied to the base plate of the tool makes metal cutting easier.
- Only suitable for cutting brass, copper, lead, aluminum or galvanised mild steel.
- Every 2 minutes of metal cutting should be followed by a rest of at least 3 minutes.

#### **2. Ceramic tiles, slates etc:**

- Only use a blade specifically designed for the purpose.
- Always use with a suitable vacuum cleaner or dust extractor connected as the dust can be hazardous to the operator and prevent the guard operating correctly.
- Applying masking or PVC tape to the base plate of the tool, or alternatively to the work piece can make cutting easier and avoid scratching the tile.

#### **3. Plasterboard:**

- The PS 160 is only recommended for making occasional cut outs in plasterboard and always with a suitable vacuum cleaner or dust extractor connected. The dust can prevent the guard operating correctly.
- Conventional tools such as keyhole saws or knives generally give excellent results, though the PS 160 can be used if a particularly neat, dust free cut is required or if there is a danger of cutting pipes or cables.

### **Dust Extraction**

The PS 160 is a powerful tool capable of producing a large amount of dust. As the tool has a fully enclosed blade, forced dust extraction is particularly efficient. Forced dust extraction should be used for all but small trimming jobs.

- a) An industrial vacuum dust extractor or domestic vacuum cleaner can be connected to the dust outlet nozzle of the tool, using the dust hose supplied with your saw kit from EXAKT.
- b) Before using ensure that the metal retaining clip is flush with the end of the hose.
- c) To attach the hose disconnect the tool from the power supply. Press the hose end with the metal clip onto the dust nozzle only as far as the raised ridges on the tool body. Ensure the guard moves up and down freely. Press the adaptor into the vacuum hose. Tape can be used to assist, if required.
- d) Ensure that the vacuum cleaner to be used is recommended for use with a power tool. Generally most domestic wet and dry vacuum cleaners are suitable.
- e) Forced dust extraction is particularly recommended when a lot of cutting is being carried out as far fewer stoppages are required for cleaning the tool and surrounding area.
- f) Forced dust extraction should always be used when cutting hazardous materials such as hard woods, MDF or ceramics.
- g) Forced dust extraction is recommended when it is desirable to keep the working area clean.
- h) Forced dust extraction is essential if the material being cut is slightly damp.



### **PS 160 Safety Warnings – Maintenance and Servicing**

#### **Cleaning**

Regular cleaning is required for the safe operation of the tool, as an excessive build up of dust will prevent the tool operating correctly.

The dust extract nozzle may block and require cleaning occasionally, especially if damp wood is being cut.

- Unplug from mains supply and remove guard. (See **Guard Removal Section**)
- Clean thoroughly with a small soft brush, like a paint brush.

### Safety Blade Retaining Washer

The blade is clamped in place using a special safety washer that is designed to slip if the blade jams. The result is that the motor slows down, sounds like it is labouring and the tool will stop cutting. If this happens the operator should immediately reduce the feed pressure until the motor sounds healthy or remove the tool from the work piece to prevent permanent damage. The washer is a consumable item, which should be replaced if damaged or deformed.

**NOTE: Never replace this washer with anything other than an EXAKT replacement part. (See List of user-replacable parts)**

### Blades

- NOTE: Always use a sharp blade.
- If the tool does not cut as well as expected or if it overheats (temperature cut out may trip) the most common cause is a blunt blade.
- It is difficult to see or feel if the blade is blunt. If in doubt use a new blade.
- Blades are consumable items.
- Always use Exakt blades.
- Beware when changing blades as they can become hot during use. Allow the blade time to cool before replacing.
- The blade diameter for the PS 160 saw is 2-1/8"

### Servicing and replacable Parts

**For replacement blades, servicing and repairs contact JML USA, Inc:**

JML USA, Inc.  
3PL Worldwide 500 Bic Drive  
Ground Floor, Building 4  
Milford, CT 06461.

Call customer service on: 877-660-9784

### Explanation of Symbols



Double insulated appliance



Wear suitable face mask



Read instructions before use



Wear suitable eye protection



Risk of electric shock



Wear suitable ear protection



Risk of injury when instructions are not followed



Discard at recognised collection point

Specifications	PS 160
Usage	DIY
Motor power	120V -350W
Depth of cut	0 -9/16"
Approx. no load blade speed	4000 rpm
Maximum duty cycle	3 min / 5 min
Gearbox reduction ratio	8.8:1
Approximate weight	1.2 kg (2.6 Lbs.)
Maximum blade diameter	2 1/8"
Maximum / Minimum blade width	0.08/0.03"
Hand arm vibration value	< 2.5 m / s <sup>2</sup>
Sound pressure level No load	83 dBA
Sound power level L <sub>WA</sub> No Load	94 dBA

Cutting Specs.	
Wood	All types up to 9/16"
Metals	Up to 1/8" in Aluminium & lead
Composites	MDF, ply & chipboard to 1/2"
Plastics	Tufnol, perspex, fibreglass etc.
Minerals	Wall & Floor tiles, slates etc.

Where there is access to cut from the back surface of the material, over cutting by the allowance shown will ensure perfect corners on the front surface.

### Approximate over cutting allowances

Depth setting	1/8	3/16	1/4	5/16	3/8	7/16	1/2
Overcut by	3/8	7/16	1/2	9/16	5/8	11/16	3/4

Assumes the depth has been set to 1/64" greater than the material to be cut.

### **JML Guarantee**

This product is unconditionally guaranteed for one year against all defects of workmanship and materials. This guarantee does not affect your statutory rights.

This warranty does not cover damage from negligence, misuse, abuse, accident, failure to follow operating instructions, commercial use, rental, repairs by an unauthorized facility, or products purchased, used, serviced or damaged outside of the United States.

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